

CLAIMS

1. Device for the elimination of the gas or paraffin hydrate deposits that form on the inside wall of hydrocarbon production or transportation pipes through the use of a reactant that is likely to decompose at high temperatures where said device is characterized by the fact that it consists of:

- an annular decomposition chamber (1) mounted in a sealed manner around a section of said pipe (2), where said chamber contains a catalyst (3) that promotes the decomposition of said reactant,

- a reservoir for the reactant (4) that feeds said decomposition chamber with reactant, so as to heat the paraffin and hydrate deposits (9) through the heat that emanates from the decomposition of the reactant by the catalyst,

- an output tube (11) for the evacuation of the products that result from the decomposition of the reactant outside the decomposition chamber,

- and means for injecting (13, 14) a flushing fluid under pressure inside the decomposition chamber in order to carry said products that result from the decomposition toward the output tube.

2. Device as set forth in claim 1, characterized by the fact that the reactant is chosen from the group that contains hydrogen peroxide, hydrazine and ethylene oxide.

3. Device as set forth in claim 1, characterized by the fact that the catalyst (3) is solid and is chosen from the group that consists of a metal oxide, iron, platinum and silver.

4. Device as set forth in claim 3, characterized by the fact that solid catalyst is deposited on a ceramic support.

5. Device as set forth in claim 4, characterized by the fact that the catalyst is liquid and is chosen from the group that contains iron nitrate and iron sulfate.

6. Device as set forth in claim 1, characterized by the fact that it also consists of means (16, 18, 19) for injecting a liquid additive (17) into the decomposition chamber (1) to facilitate the initiation of the decomposition reaction of the reactant.

7. Device as set forth in claim 1, characterized by the fact that the flushing fluid is nitrogen.

8. Device as set forth in claim 1, characterized by the fact that the reactant's reservoir is connected to the decomposition chamber (1) by an entry tube (6) through an adjustable admission valve (7) and an entry check valve (8).

9. Device as set forth in claim 1, characterized by the fact that the output tube (11) contains an output check valve (12).

10. Device as set forth in claim 1, characterized by the fact that the inside wall of the decomposition chamber (1) is lined with a material that resists high temperatures.